D Series

D-45

Operation Manual

D-75A

Obtaining Other Language Versions: To obtain information in another language about the use of this product, please contact your local Crown Distributor. If you need assistance locating your local distributor, please contact Crown at 574-294-8000.

This manual does not include all of the details of design, production, or variations of the equipment. Nor does it cover every possible situation which may arise during installation, operation or maintenance.

The information provided in this manual was deemed accurate as of the publication date. However, updates to this information may have occurred. To obtain the latest version of this manual, please visit the Crown website at www.crownaudio.com.

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Some models may be exported under the name Amcron.®

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A Harman International Company

125243-7
2/04

Important Safety Instructions

1) Read these instructions.
2) Keep these instructions.
3) Heed all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with a dry cloth.
7) Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10) Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments/accessories specified by the manufacturer.

12) Use only with a cart, stand, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus during lightning storms or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15) To reduce the risk of fire or electric shock, do not expose this apparatus to rain or moisture.

TO PREVENT ELECTRIC SHOCK DO NOT REMOVE TOP OR BOTTOM COVERS. NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

CAUTION
RISK OF ELECTRIC SHOCK DO NOT OPEN

À PRÉVENIR LE CHOC ÉLECTRIQUE N'ENLEVEZ PAS LES COUVERCLES. IL N'Y A PAS DES PARTIES SERVICEABLE À L'INTÉRIEUR. TOUS REPARATIONS DOIT ETRE FAIRE PAR PERSONNEL QUALIFIÉ SEULMENT.

AVIS
RISQUE DE CHOC ÉLECTRIQUE N'OUVREZ PAS

IMPORTANT

D Series amplifiers require Class 2 output wiring.

MAGNETIC FIELD

CAUTION! Do not locate sensitive high-gain equipment such as preamplifiers or tape decks directly above or below the unit. Because this amplifier has a high power density, it has a strong magnetic field which can induce hum into unshielded devices that are located nearby. The field is strongest just above and below the unit.

If an equipment rack is used, we recommend locating the amplifier(s) in the bottom of the rack and the preamplifier or other sensitive equipment at the top.

WATCH FOR THESE SYMBOLS:

The lightning bolt triangle is used to alert the user to the risk of electric shock.

The exclamation point triangle is used to alert the user to important operating or maintenance instructions.

FCC COMPLIANCE NOTICE

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the operation manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Crown International, Inc.

DECLARATION of CONFORMITY

Issued By: Crown International, Inc.
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CF23 8ND United Kingdom

Equipment Type: Commercial Audio Power Amplifiers
Family Name: D Family
Model Names: D-45, D-75A

EMC Standards:

EN 55103-1:1995 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 1: Emissions

EN 55103-1:1995 Magnetic Field Emissions-Annex A @ 10 cm and 1 M

EN 61000-3-2:1995+A14:2000 Limits for Harmonic Current Emissions (equipment input current 16A per phase)

EN 61000-3-3:1995 Limitation of Voltage Fluctuations and Flicker in Low-Voltage Supply Systems Rated Current 16A

EN 55022:1992 + A1: 1995 & A2:1997 Limits and Methods of Measurement of Radio Disturbance Characteristics of ITE: Radiated, Class B Limits; Conducted, Class B

EN 55103-2:1996 Electromagnetic Compatibility - Product Family Standard for Audio, Video, Audio-Visual and Entertainment Lighting Control Apparatus for Professional Use, Part 2: Immunity

EN 61000-4-2:1995 Electrostatic Discharge Immunity (Environment E2-Criteria B, 4k V Contact, 8k V Air Discharge)

EN 61000-4-3:1996 Radiated, Radio-Frequency, Electromagnetic Immunity (Environment E2, Criteria A)

EN 61000-4-4:1995 Electrical Fast Transient/Burst Immunity (Criteria B)

EN 61000-4-5:1995 Surge Immunity (Criteria B)

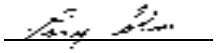
EN 61000-4-6:1996 Immunity to Conducted Disturbances Induced by Radio-Frequency Fields (Criteria A)

EN 61000-4-11:1994 Voltage Dips, Short Interruptions and Voltage Variation

Safety Standard:

EN 60065: 1998 Safety Requirements - Audio Video and Similar Electronic Apparatus

I certify that the product identified above conforms to the requirements of the EMC Council Directive 89/336/EEC as amended by 92/31/EEC, and the Low Voltage Directive 73/23/EES as amended by 93/68/EEC.

Signed 

Larry Coburn
Title: Senior Vice President of Manufacturing

Date of Issue: January 1, 2001

DUE TO LINE CURRENT HARMONICS, WE RECOMMEND THAT YOU CONTACT YOUR SUPPLY AUTHORITY BEFORE CONNECTION.

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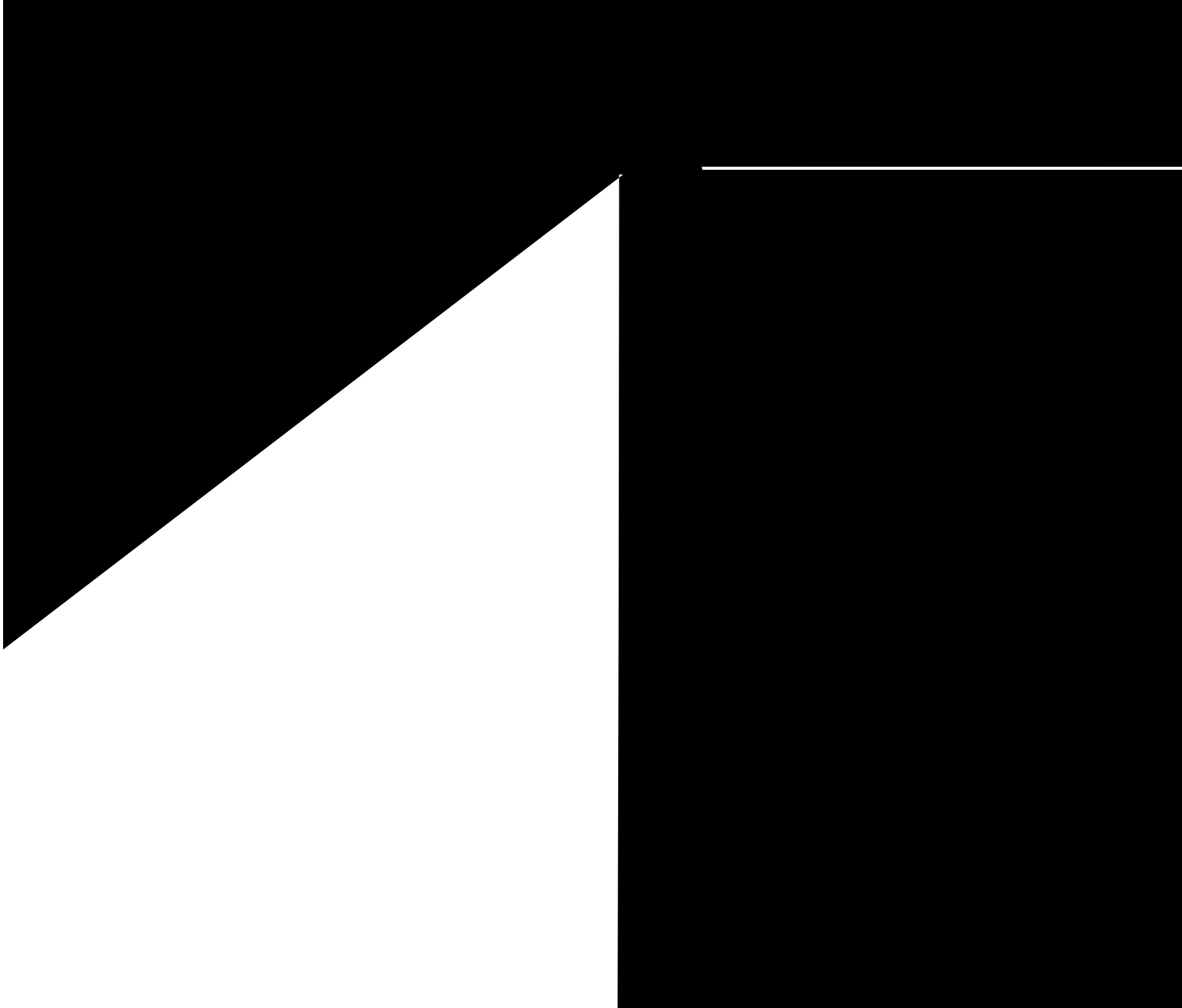
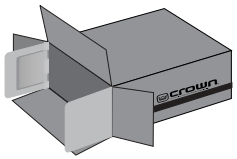


2 Setup



2.1 Unpack Your Amplifier

Please unpack and inspect your amplifier for any damage that may have occurred during transit. If damage is found, notify the transportation company immediately. Only you can initiate a claim for shipping damage. Crown will be happy to help as needed. Save the shipping carton as evidence of damage for the shipper's inspection.

We also recommend that you save all packing materials so you will have them if you ever need to transport the unit. **Never ship the unit without the factory pack.**

YOU WILL NEED (not supplied):

- Input wiring cables
- Output wiring cables

Rack for mounting amplifier (or a stable surface for stacking)

WARNING: Before you start to set up your amplifier, make sure you read and observe the Important Safety Instructions found at the beginning of this manual.

2.2 Install Your Amplifier

CAUTION: Before you begin, make sure your amplifier is disconnected from the power source, with the power switch in the "off" position and all level controls turned completely down (counterclockwise).

Use a standard 19-inch (48.3 cm) equipment rack (EIA RS-310B). See Figure 2.1 for amplifier dimensions.

You may also stack amps without using a cabinet.

NOTE: When transporting, amplifiers should be supported at the front.

2.3 Ensure Proper Cooling

When using an equipment rack, do not mount units directly on top of each other. Allow some air space between units for convection cooling. The side walls of the rack should be a minimum of two inches (5.1 cm) away from the amplifier sides, and the back of the rack should be a minimum of four inches (10.2 cm) from the amplifier back panel.

Figure 2.2 illustrates D Series amplifier installation.

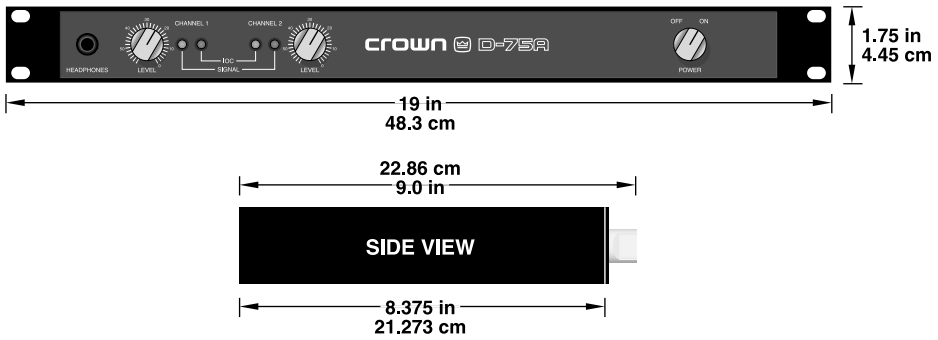


Figure 2.1 D-45 and D-75A Dimensions

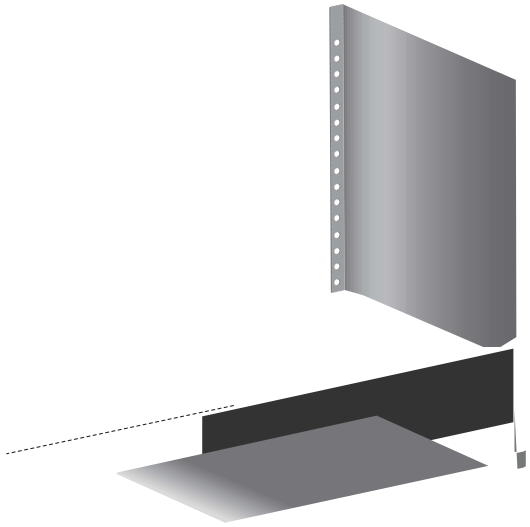


Figure 2.2 Installation

2 Setup

2.4 Choose Input Wire and Connectors

Figure 2.3 shows connector pin assignments for balanced wiring, and Figure 2.4 shows connector pin assignments for unbalanced wiring.

NOTE: Custom wiring should only be performed by qualified personnel.

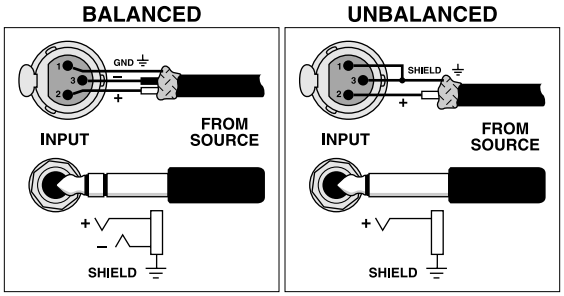


Figure 2.3 Balanced Input Connector Wiring

Figure 2.4 Unbalanced Input Connector Wiring

2.5 Choose Output Wire and Connectors

Crown recommends using professionally constructed, high-
quality, two- or four-conductor, heavy gauge speaker wire and connectors. You may use terminal forks or bare wire for your output connectors (see Figure 2.5). To prevent the possibility of short-circuits, wrap or otherwise insulate exposed loudspeaker cable and connectors.

Using the guidelines below, select the appropriate size of wire based on the distance from amplifier to speaker.

Distance	Wire Size
up to 25 ft.	16 AWG
26-40 ft.	14 AWG
41-60 ft.	12 AWG
Over 60 ft.	10 AWG

CAUTION: Never use shielded cable for output wiring.

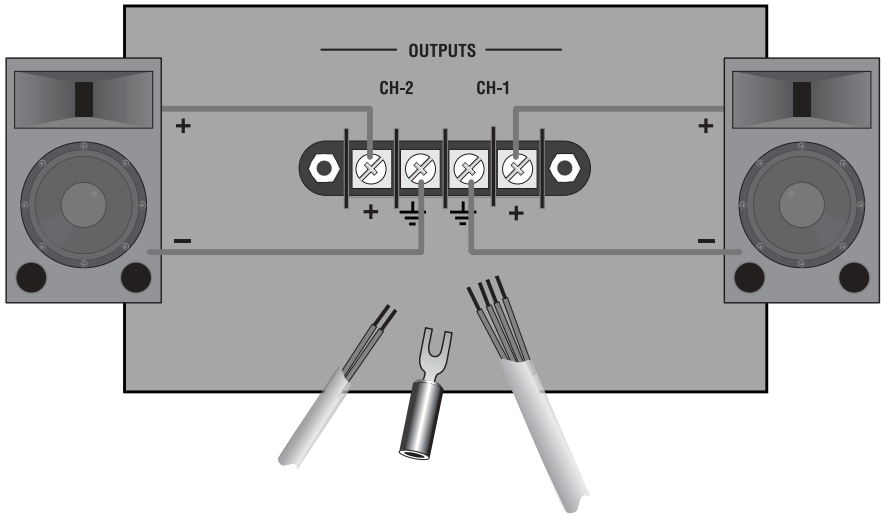


Figure 2.5 Output Connector Wiring

2 Setup

2.6 Wire Your System

2.6.1 Dual Mode

Typical input and output wiring is shown in Figure 2.5.

INPUTS: Connect input wiring for each channel.

OUTPUTS: Maintain proper polarity (+/-) on output connectors.

Connect Channel 1 positive (+) speaker load to Channel 1 positive terminal of amp; repeat for negative (-). Repeat each channel wiring as for Channel 1. Refer to Section 2.5 for output connector pin assignments.

2.6.2 Bridge-Mono Mode

Your amplifier is factory-configured for dual (stereo) operation. As an option, the unit can be configured for higher power, single-channel, bridge-mono mode by an authorized Crown Service Center. **To prevent damage to the amplifier, do not operate the unit in bridge-mono mode without the Service Center modification.**

Typical input and output wiring is shown in Figure 2.7.

INPUTS: Connect input wiring only to CH 1.

OUTPUTS: Connect the speaker across the positive output terminals. Do not use the negative terminals when the amplifier is being operated in Bridge-Mono mode.

NOTE: Crown provides a reference of wiring pin assignments for commonly used connector types in the Crown *Amplifier Application Guide* available at www.crownaudio.com.

NOTE: When operating in Bridge-Mono mode, turn down (full CCW) the CH 2 level control. The CH 1 level control works both channels.

If your loudspeakers don't need the additional voltage, and you only have one input signal to drive multiple loudspeakers, you can use bridge-mono mode without actually bridging the outputs. Bridge-mono mode is like dual mode except the channel 1 input feeds both outputs, and the channel 2 output is inverted. To use bridge-mono mode without bridging the outputs, wire your loudspeakers as you would for dual mode, but invert the polarity of the channel 2 output wiring (positive goes to negative, and negative goes to positive).

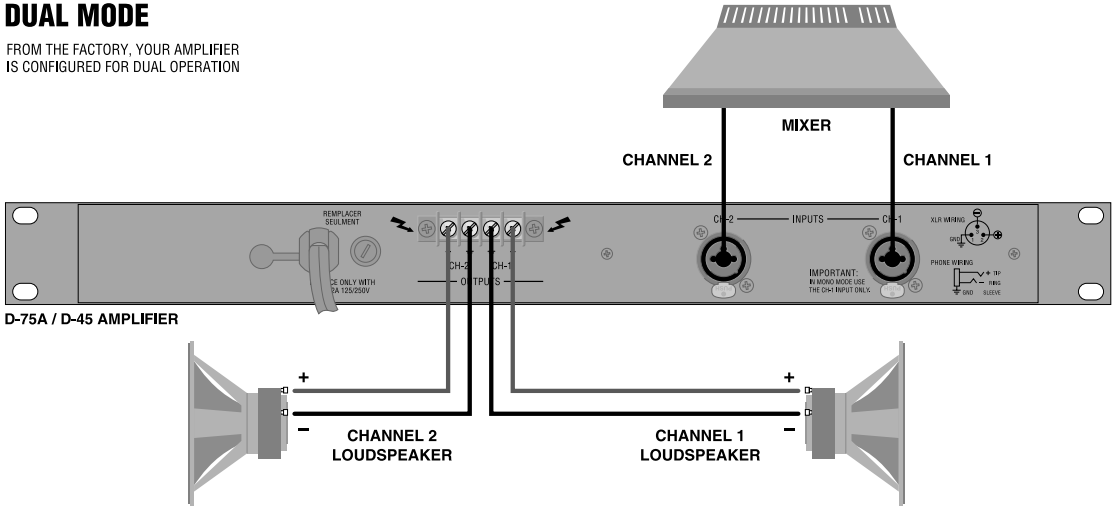


Figure 2.6 System Wiring for Dual Mode

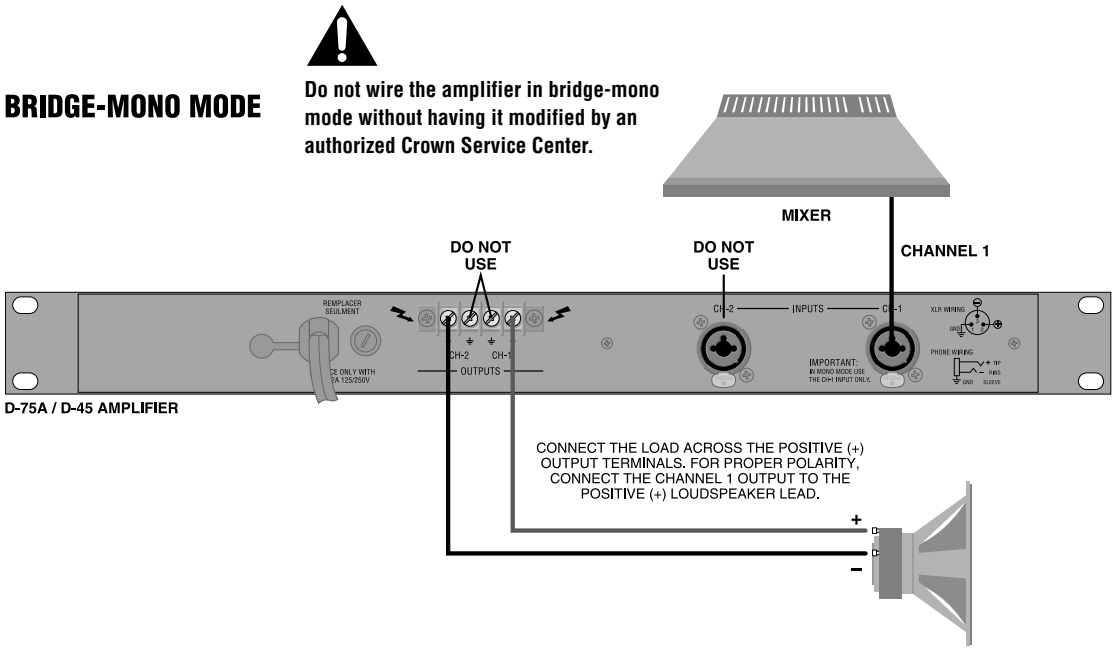

BRIDGE-MONO MODE
Do not wire the amplifier in bridge-mono mode without having it modified by an authorized Crown Service Center.
MIXER
DO NOT USE
DO NOT USE
CHANNEL 1
INPUTS
OUTPUTS
CH-2
CH-1
D-75A / D-45 AMPLIFIER
CONNECT THE LOAD ACROSS THE POSITIVE (+) OUTPUT TERMINALS. FOR PROPER POLARITY, CONNECT THE CHANNEL 1 OUTPUT TO THE POSITIVE (+) LOUDSPEAKER LEAD.

Figure 2.7 System Wiring for Bridge-Mono Mode

2 Setup

2.7 Connect to AC Mains

Connect your amplifier to the AC mains power source (power outlet) with the supplied AC power cordset.

WARNING: The third prong of this connector (ground) is an important safety feature. Do not attempt to disable this ground connection by using an adapter or other methods.

Amplifiers don't create energy. The AC mains voltage and current must be sufficient to deliver the power you expect. You must operate your amplifier from an AC mains power source with not more than a 10% variation above or a 15% variation below the amplifier's specified line voltage and within the specfied frequency requirements (indicated on the amplifier's back panel label). If you are unsure of the output voltage of your AC mains, please consult your electrician.

2.7.1 AC Mains Voltage Configuration

North American 120 VAC, 60 Hz units have a standard three wire, grounded AC plug as specified by UL requirements. The 120 volt models and the European models have the appropriate plug. The other 200, 220 and 240 volt models have a North American 120 volt plug. The installer must cut off the plug and supply and install a plug appropriate for the installation. Note: Crown assumes no liability whatsoever for ungrounded operation, nor for violation of UL or local electrical codes.

120 VAC, 60 Hz North American units do not have a convertible transformer, and cannot be used at other voltages and frequencies. International units can be operated with an AC mains frequency of 50 to 400 Hz, and can be configured by an authorized Crown Service Center for five different line voltages: 100, 120, 200, 220 and 240 VAC. The back panel sticker indicates the unit's factory configuration.

To alter your amplifier's AC mains voltage configuration, take the unit to an authorized Crown Service Center.

2.8 Startup Procedure

Use the following procedure when first turning on your amplifier:

1. Turn down the level of your audio source.
2. Turn down the Level controls of the amplifier.
3. Turn on the "Power" switch. The Power indicator should glow.
4. Turn up the level of your audio source to an optimum level.
5. Turn up the Level controls on the amplifier until the desired loudness or power level is achieved.
6. Turn down the level of your audio source to its normal range.

If you ever need to make any wiring or installation changes, don't forget to disconnect the power cord.

For help with determining your system's optimum gain structure (signal levels) please refer to the Crown *Amplifier Application Guide*, available online at www.crownaudio.com.

3 Operation

3.1 Precautions

Your amplifier is protected from internal and external faults, but you should still take the following precautions for optimum performance and safety:

1. Before use, your amplifier first must be configured for proper operation, including input and output wiring hookup. Improper wiring can result in serious operating difficulties. For information on wiring and configuration, please consult the Setup section of this manual or, for advanced setup techniques, consult Crown's *Amplifier Application Guide* available online at www.crownaudio.com.
2. Use care when making connections, selecting signal sources and controlling the output level. The load you save may be your own!
3. Do not short the ground lead of an output cable to the input signal ground. This may form a ground loop and cause oscillations.
4. **IMPORTANT: Headphone jack supplies full output voltage. Always turn level down (full CCW) before listening through headphones; otherwise headphone or hearing damage may result.**

5. **WARNING: Never connect the output to a power supply, battery or power main. Electrical shock may result.**

6. Tampering with the circuitry, or making unauthorized circuit changes may be hazardous and invalidates all agency listings.
7. Do not operate the amplifier with the IOC LEDs constantly flashing.
8. Do not overdrive the mixer, which will cause clipped signal to be sent to the amplifier. Such signals will be reproduced with extreme accuracy, and loudspeaker damage may result.
9. Do not operate the amplifier with less than the rated load impedance. Due to the amplifier's output protection, such a configuration may result in premature clipping and speaker damage.

Remember: Crown is not liable for damage that results from overdriving other system components.

3 Operation

3.2 Controls, Indicators and Connectors

Figure Figure 3.1 shows the controls, indicators and connectors on the front panel and back panel of the D-75A. The D-45 layout is similar.

WARNING: HEADPHONE JACK SUPPLIES FULL OUTPUT POWER AND MAY DAMAGE HEADPHONES OR CAUSE HEARING DAMAGE.

This standard
eo phone jack

Figure 3.1 Front and Back Views

3 Operation

3.3 Indicators

Your amplifier has five front panel indicators. First, a power indicator behind the front panel becomes visible when the unit is turned on and has power. A signal indicator for each channel (Figure 3.2) flashes when there is output from the amplifier. The IOC (Input/Output Comparator) indicators work like sensitive distortion meters and flash when the amplifier causes any distortion of 0.05% or more. The IOC indicators typically glow for about one minute after the AC power is turned off.

3.4 Controls

A power switch and detented level controls are located on the front panel. When you power up the amplifier, remember that the unit does not have a turn-on delay. Each channel has its own level control which is used to adjust the desired output level. Both level controls (Figure 3.2) are used in dual mode, but only the channel 1 control should be used in bridge-mono mode. Channel 2 control should be fully counter-clockwise in bridge-mono mode.

3.5 Fuse Replacement

The AC mains fuse is located on the back panel beside the power cord. This fuse will not blow unless something is wrong. Before replacing the unit's fuse, you should be sure to fix the source of the problem. If the problem is not immediately apparent, the unit probably needs to be serviced by a qualified technician.

WARNING: Always unplug the amplifier from the AC mains before removing the fuse.

To replace the fuse, turn off the power switch and disconnect the power plug from the AC mains. Unscrew the fuse holder cap (shown in Figure 3.1, back view) and remove the fuse.

Install appropriate fuse:

100 or 120 volt mains: 2 Amp type 3AG.

North American 200, 220 and 240 volt mains: 1 Amp type 3AG.

European 220 or 240 volt mains: 1 Amp IEC type T, time lag, low breaking capacity.

Then, simply resecure the fuse holder cap and reconnect the AC mains.

IMPORTANT: Never install a fuse that has a higher current rating than the recommended value.

IMPORTANT: The 3AG and IEC fuses are different physical sizes and require different holder caps. The 3AG and IEC fuses should not be exchanged even though they are the same value.

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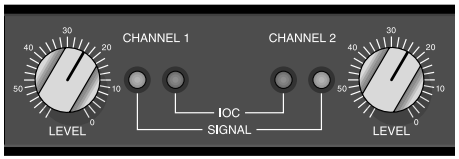


Figure 3.2
Indicators and Level Controls

4 Advanced Features and Options

NOTE: For detailed information about these Crown amplifier features, please consult the Crown *Amplifier Application Guide*, available on the Crown website at www.crownaudio.com.

4.1 Protection

Your amplifier is protected against all common hazards that plague high-power amplifiers, including shorted, open or mismatched loads; overloaded power supplies, chain destruction phenomena, input overload and high-frequency blowups.

Protection against shorted and mismatched loads is provided by an instantaneous limiter that automatically limits current to the maximum safe value for the output transistors. With a loudspeaker, you can tell the amplifier has activated load protection because it causes audible distortion. The noise might be compared to crossover notch distortion or a snapping sound, depending on the load characteristics. Loudspeaker systems with impedances of 4 ohms or higher should not activate the protection system.

All voltage amplification circuitry is designed to limit current. So in the extremely unlikely event of a device failure, the amplifier will prevent further damage. The input stages are protected from overload damage by series resistors. The unit also features a controlled slew rate and a V-I limiter that protect the amplifier from high-frequency (RF) blowups.

4.2 Options

4.2.1 Bridge-Mono Option

Your amplifier is factory-set for dual (stereo) operation. As an option, you may have the unit configured for higher-power, single-channel, bridge-mono operation. If you want the bridge-mono modification, take the unit to an authorized Crown Service Center.

IMPORTANT: Critical differences between dual and mono wiring are described in Section 2.6.2.

4.2.2 Input-Sensitivity Option

The input sensitivity of your amplifier is factory-set to 26 dB gain. As an option, the unit can be set to an input sensitivity of 0.775 volt by an authorized Crown Service center.

For most applications, the amplifier's default setting of 26 dB gain will be ideal. With this default setting, full output power is achieved with an input signal of 0.632 volts for the D-45, and 0.837 volts for the D-75A.

Some applications may require the gain structure to be calculated based on a sensitivity of 0.775 volts. And although the 26 dB gain setting provides a sensitivity for each amplifier that is very near 0.775 volts, the 0.775-volt sensitivity setting is provided for applications that demand this sensitivity with a high level of precision.

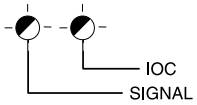
A Crown Service Center can activate the 0.775 volt input sensitivity without voiding the warranty.

5 Troubleshooting

CONDITION: Power indicator is off.

POSSIBLE REASON

- The amplifier has lost AC power.
- The amplifier's Power switch is off.
- The amplifier is not plugged into the power receptacle.
- The amplifier output level is so high that the power supply fuse has blown. Verify that input levels and output impedances are within safe ranges. Refer the unit to an authorized Crown service center for fuse replacement.

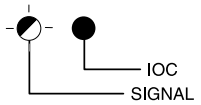


CONDITION: Distorted sound.

POSSIBLE REASON:

- Load is wired incorrectly.
- Input signal level is too high. Turn down your amplifier level controls, or turn down the input signal, until the clip light goes out.

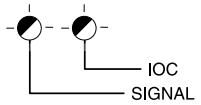
Note: If the signal sounds distorted even though the Clip LED is off, the input signal is distorted. Check gain staging and output levels of the mixer or preamp.



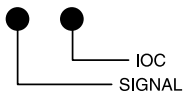
CONDITION: No sound, even though the amp has power. Power LED is on and the amp is receiving an input signal. Signal indicator is flashing.

POSSIBLE REASON:

- Speakers not connected.
- Open circuit due to speaker failure.



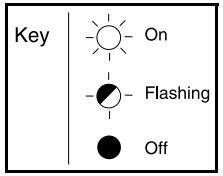
- There is a short on the amplifier output. First disconnect your speakers from the affected channel(s) one by one to determine if one of the loads is shorted.



CONDITION: No input signal. (Signal indicator is not flashing even though audio is applied).

POSSIBLE REASON:

- Input signal level is very low.
- Level controls are turned down.



6 Specifications

Minimum Guaranteed Power	D-45	D-75A
120V/60 Hz Units, Dual mode, per channel, both channels driven		
1 kHz with 0.1% THD		
4 ohms	35W	55W
8 ohms	25W	40W
16 ohms	20W	25W
120V/60 Hz Units, Bridge mono mode		
1 kHz with 0.1% THD		
8 ohms	70W	110W
16 ohms	50W	80W
Performance	**D-45**	**D-75A**
Frequency Response (at 1 watt, 20Hz - 20 kHz)	± 0.1 dB	± 0.1 dB
Phase Response (at 1 watt, 20Hz - 20 kHz)	+10° to -15°	+10° to -15°
Signal to Noise Ratio (below rated power, 20 Hz to 20 kHz)	106 dB unweighted	106 dB unweighted
Total Harmonic Distortion (THD) at 1 watt, from 20 Hz to 20 kHz	< 0.05%	< 0.05%
Intermodulation Distortion (IMD) 60 Hz and 7 kHz at 4:1, from.25 watts to full bandwidth power	< 0.01%	< 0.01%
Damping Factor: DC to 400 Hz	> 400	> 400
Crosstalk (below rated power, 100 Hz to 1 kHz)	>100 dB	> 100 dB
Input Impedance nominally balanced, nominally unbalanced	20 kilohms, 10 kilohms	20 kilohms, 10 kilohms
Load Impedance (Note: Safe with all types of loads)		
Stereo	4-16 ohms	4-16 ohms
Bridge Mono	8-16 ohms	8-16 ohms
Required AC Mains		
North American units	120 VAC, 60 Hz	120 VAC, 60 Hz
International units	100, 120, 200, 220, and 240 VAC (± 10%), 50 to 400 Hz depending on the transformer configuration	100, 120, 200, 220, and 240 VAC (± 10%), 50 to 400 Hz depending on the transformer configuration
Power Draw at Idle	15 W or less	15 W or less
Cooling	Convection cooled through chassis and front panel	Convection cooled through chassis and front panel
Dimensions: Width, Height, Depth	19 in. (48.3 cm) x 1.75 in. (4.5 cm) x 8.5 in. (21.6 cm)	19 in. (48.3 cm) x 1.75 in. (4.5 cm) x 8.5 in. (21.6 cm)
Net Weight, Shipping Weight	8 lb. 11 oz. (3.9 kg), 10 lb. 9 oz. (4.8 kg)	9 lb. 7 oz. (4.3 kg), 11 lb. 4 oz. (5.1 kg)

6 Specifications

D-45											
Configuration and Load (ohms)		FTC Continuous Average Power at 0.1% THD (See note 1)		Max. Average Power at 0.1% THD (See note 2)	Single-Cycle Tone Burst Watts at < 0.05% THD (See note 3)			40 mS Tone Burst Watts at < 0.05% THD (See note 4)			EIA Watts at 1% THD (See note 5)
		20Hz-20kHz	1 kHz	1 kHz	20 Hz	50 Hz	1 kHz	20 Hz	50 Hz	1 kHz	1 kHz
Dual (both channels driven)	4			35	40	50	75	55	60	60	35
	8	20	25	25	25	30	35	40	40	40	25
	16	20	20	20	20	20	20	20	20	20	20
Bridge-Mono (balanced output)	8			70	85	105	145	85	85	85	70
	16	40	50	50	50	60	70	50	50	55	50

Figure 6.1 D-45 Power Matrix

D-75A											
Configuration and Load (ohms)		FTC Continuous Average Power at 0.1% THD (See note 1)		Max. Average Power at 0.1% THD (See note 2)	Single-Cycle Tone Burst Watts at < 0.05% THD (See note 3)			40 mS Tone Burst Watts at < 0.05% THD (See note 4)			EIA Watts at 1% THD (See note 5)
		20Hz-20kHz	1 kHz	1 kHz	20 Hz	50 Hz	1 kHz	20 Hz	50 Hz	1 kHz	1 kHz
Dual (both channels driven)	4	45	50	55	65	85	120	65	70	70	55
	8	35	40	40	45	50	60	45	45	45	40
	16	25	25	25	25	30	30	25	25	25	25
Bridge-Mono (balanced output)	8	95	105	110	140	165	235	140	140	140	105
	16	70	75	80	90	100	130	90	90	95	75

Figure 6.2 D-75A Power Matrix

Notes:

All power matrix specifications are based on a 0.1% regulated 120 VAC, 60 Hz power mains and an ambient room temperature of 70° F (21° C).

1. Continuous power in the context of Federal Trade Commission testing is understood to be a minimum of five minutes of operation. Harmonic distortion is measured at the RMS sum total as a percentage of the fundamental output voltage. This applies for all wattages greater than 0.25 watts.
2. A 1 kHz sine wave is presented to the amplifier and the output monitored for nonlinear distortion. The level is increased until the THD reaches 0.1%. At this level the average power per channel is reported.
3. A single cycle sine wave is presented to the amplifier and monitored for nonlinear distortion. The average power during the burst is reported. Loudspeakers must be able to withstand this level if they are to be safely used with this amplifier.
4. A 40 millisecond burst or a two cycle sine wave (whichever is of greater duration) is used and the power computed as the average power during the burst. The duty cycle of this test is 10 percent. This power level is a measure of how loud an amplifier is as perceived by the human ear.
5. EIA standard RS-490 (both channels driven).

7 Service

Crown amplifiers are quality units that rarely require servicing. Before returning your unit for servicing, please contact Crown Technical Support to verify the need for servicing.

This unit has very sophisticated circuitry which should only be serviced by a fully trained technician. This is one reason why each unit bears the following label:

CAUTION: To prevent electric shock, do not remove covers. No user serviceable parts inside. Refer servicing to a qualified technician.

7.1 Worldwide Service

Service may be obtained from an authorized service center. (Contact your local Crown/Amcron representative or our office for a list of authorized service centers.) To obtain service, simply present the bill of sale as proof of purchase along with the defective unit to an authorized service center. They will handle the necessary paperwork and repair.

Remember to transport your unit in the original factory pack.

7.2 US and Canada Service

Service may be obtained in one of two ways: from an authorized service center or from the factory. You may choose either. It is important that you have your copy of the bill of sale as your proof of purchase.

7.2.1 Service at a US or Canada Service Center

This method usually saves the most time and effort. Simply present your bill of sale along with the defective unit to an authorized service center to obtain service. They will handle the necessary paperwork and repair. Remember to transport the unit in the original factory pack. A list of authorized service centers in your area can be obtained from the Crown website at www.crownaudio.com, or by calling Crown Customer Service.

7.2.2 Factory Service

To obtain factory service, fill out the service information page found in the back of this manual and send it along with your proof of purchase and the defective unit to the Crown factory.

For warranty service, we will pay for ground shipping both ways in the United States. Contact Crown Customer Service to obtain prepaid shipping labels prior to sending the unit. Or, if you prefer, you may prepay the cost of shipping, and Crown will reimburse you. Send copies of the shipping receipts to Crown to receive reimbursement.

Your repaired unit will be returned via UPS ground. Please contact us if other arrangements are required.

7.2.3 Factory Service Shipping Instructions:

1. Before sending a Crown product to the factory for service, first call the Crown Service Department for a return authorization (RA) number.
2. Be sure to fill out the service information form that follows and enclose it with your shipment, either inside the box or in a packing slip envelope securely attached to the outside of the shipping carton. Do not send the service information form separately. If you are sending the unit from a Shipping Center, we recommend taping the form to the product. We also recommend recording the serial number and model before shipping for your reference.
3. To ensure the safe transportation of your unit to the factory, ship it in an original factory packing container. If you don't have the original carton, you may obtain a product service foam-in-place shipping pack from the Crown Factory Service Department at the number listed below. For non-warranty service, you may also provide your own shipping pack, however we still recommend using a Crown Supplied Shipping Container. Minimum recommended requirements for materials are as follows: 275 P.S.I. burst test Double-Wall carton that allows for 2-inch solid Styrofoam on all six sides of unit or 3 inches of plastic bubble wrap on all six sides of unit; securely seal the package with an adequate carton sealing tape. Do not use light boxes or "peanuts." Damage caused by poor packing cannot be covered under warranty.
4. Do not ship the unit in any kind of cabinet (wood or metal). Ignoring this warning may result in extensive damage to the unit and the cabinet. Accessories are not needed—do not send the product documentation, cables and other hardware.

If you have any questions, please contact Crown Factory Service.

Crown Factory Service
1718 W. Mishawaka Rd.,
Elkhart, Indiana 46517 U.S.A.

Telephone: 574-294-8200
800-342-6939 (North America,
Puerto Rico, and Virgin Islands only)

Facsimile:
574-294-8301 (Technical Support)
574-294-8124 (Factory Service)

Internet:
http://www.crownaudio.com

8 Warranty

UNITED STATES & CANADA

SUMMARY OF WARRANTY

Crown International, 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship. We further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

ITEMS EXCLUDED FROM THIS CROWN WARRANTY

This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO

We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers or at the factory. Warranty work for some products can only be performed at our factory. We will remedy the defect and ship the product from the service center or our factory within a reasonable time after receipt of the defective product at our authorized service center or our factory. All expenses in remedying the defect, including surface shipping costs in the United States, will be borne by us. (You must bear the expense of shipping the product between any foreign country and the port of entry in the United States including the return shipment, and all taxes, duties, and other customs fees for such foreign shipments.)

HOW TO OBTAIN WARRANTY SERVICE

You must notify us of your need for warranty service within the warranty period. All components must be shipped in a factory pack, which, if needed, may be obtained from us free of charge. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by us or our authorized service center. If the repairs made by us or our authorized service center are not satisfactory, notify us or our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES

YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATIONS OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

WARRANTY ALTERATIONS

No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES

We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER

THIS CROWN WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE. No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS. 12/01

8 Warranty

WORLDWIDE EXCEPT USA & CANADA

SUMMARY OF WARRANTY
Crown International, 1718 West Mishawaka Road, Elkhart, Indiana 46517-4095 U.S.A. warrants to you, the ORIGINAL PURCHASER and ANY SUBSEQUENT OWNER of each NEW Crown1 product, for a period of three (3) years from the date of purchase by the original purchaser (the "warranty period") that the new Crown product is free of defects in materials and workmanship, and we further warrant the new Crown product regardless of the reason for failure, except as excluded in this Warranty.

1 Note: If your unit bears the name "Amcron," please substitute it for the name "Crown" in this warranty.

ITEMS EXCLUDED FROM THIS CROWN-WARRANTY
This Crown Warranty is in effect only for failure of a new Crown product which occurred within the Warranty Period. It does not cover any product which has been damaged because of any intentional misuse, accident, negligence, or loss which is covered under any of your insurance contracts. This Crown Warranty also does not extend to the new Crown product if the serial number has been defaced, altered, or removed.

WHAT THE WARRANTOR WILL DO
We will remedy any defect, regardless of the reason for failure (except as excluded), by repair, replacement, or refund. We may not elect refund unless you agree, or unless we are unable to provide replacement, and repair is not practical or cannot be timely made. If a refund is elected, then you must make the defective or malfunctioning product available to us free and clear of all liens or other encumbrances. The refund will be equal to the actual purchase price, not including interest, insurance, closing costs, and other finance charges less a reasonable depreciation on the product from the date of original purchase. Warranty work can only be performed at our authorized service centers. We will remedy the defect and ship the product from the service center within a reasonable time after receipt of the defective product at our authorized service center.

HOW TO OBTAIN WARRANTY SERVICE
You must notify your local Crown importer of your need for warranty service within the warranty period. All components must be shipped in the original box. Corrective action will be taken within a reasonable time of the date of receipt of the defective product by our authorized service center. If the repairs made by our authorized service center are not satisfactory, notify our authorized service center immediately.

DISCLAIMER OF CONSEQUENTIAL AND INCIDENTAL DAMAGES
YOU ARE NOT ENTITLED TO RECOVER FROM US ANY INCIDENTAL DAMAGES RESULTING FROM ANY DEFECT IN THE NEW CROWN PRODUCT. THIS INCLUDES ANY DAMAGE TO ANOTHER PRODUCT OR PRODUCTS RESULTING FROM SUCH A DEFECT.

WARRANTY ALTERATIONS
No person has the authority to enlarge, amend, or modify this Crown Warranty. This Crown Warranty is not extended by the length of time which you are deprived of the use of the new Crown product. Repairs and replacement parts provided under the terms of this Crown Warranty shall carry only the unexpired portion of this Crown Warranty.

DESIGN CHANGES
We reserve the right to change the design of any product from time to time without notice and with no obligation to make corresponding changes in products previously manufactured.

LEGAL REMEDIES OF PURCHASER
No action to enforce this Crown Warranty shall be commenced after expiration of the warranty period.

THIS STATEMENT OF WARRANTY SUPERSEDES ANY OTHERS CONTAINED IN THIS MANUAL FOR CROWN PRODUCTS. 7/01

NOTES

Crown Factory Service Information

Shipping Address: Crown Factory Service, 1718 W. Mishawaka Rd., Elkhart, IN 46517

Phone: 1-800-342-6939 or 1-574-294-8200 Fax: 1-574-294-8124

Owner's Name : _____

Shipping Address: _____

Phone Number: _____ **Fax Number:** _____ **Email** _____

Model: _____ **Serial Number:** _____

Purchase Date : _____

NATURE OF PROBLEM

(Be sure to describe the conditions that existed when the problem occurred and what attempts were made to correct it.)

_____

_____

_____

_____

_____

_____

_____

_____

Other equipment in system: _____

_____

_____

_____

If warranty has expired, payment will be: ☐ *Cash/Check* ☐ *Visa* ☐ *Master Card* ☐ *C.O.D.* ☐ *Purchase Order for Crown Dealer*

*Card Number:*_____ *Exp. Date:*_____

*Signature:*_____

ENCLOSE THIS PORTION WITH THE UNIT. DO NOT MAIL SEPARATELY.

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A Harman International Company